

Appl. No. 10/717,951
Docket No. XOGN002-01US
Filed: November 19, 2003
Reply to Office Action of August 23, 2005

Remarks

Claim Rejections – 35 USC § 112

Claim 2 states:

2. The method of claim 1 wherein the waste stream includes a water component and the operation of the oxyhydrogen gas generator produces oxyhydrogen-rich gas from the water component of the waste stream.

We are uncertain as to why the examiner believes there is no antecedent for “the water component” when the first line of claim 2 refers to “a water component”. Clarification on this would be most appreciated. Please advise on wording that would be acceptable.

Claim Rejections – 35 USC § 102

Regarding Robert (EP 0748984) this patent describes a process quite different from the present invention. The electrolysis process of Robert is used to degrade a photographic developer into a volatile organic compound. This volatile organic compound is then combusted using the hydrogen produced from electrolysis as the energy source. We respectfully submit that Robert makes no mention of oxyhydrogen gas. Oxyhydrogen gas is a single gas containing both oxygen and hydrogen as described in the disclosure of the present invention on page 4 beginning at paragraph 11. Robert makes it clear at column 3, paragraph 16 that the gas produced is hydrogen. Further Robert does not provide a second use for the gas produced rather he discloses only a single use, to fuel a burner 32 (see Figure 2 and page 4 beginning at paragraph 25). The examiner also makes reference to “an external water source (col. 5, lines 1-2), we are unable to find any mention of water in Robert in particular at the place cited by the examiner nor does there appear to be any reference to an external water source in the Figures.

Regarding Wesley (U.S. Patent 3,829,368), no mention is made of oxyhydrogen gas. Wesley quite clearly discloses the creation of two gases, hydrogen and oxygen, see features 50 and 52 of Figure 1 and column 6 beginning at line 37. Further at column 6 line 60 Wesley states; “Since it is essential to the operation of the system that the two gases are kept separated and isolated...”. The applicants respectfully submit that Wesley never considered utilizing a single gas, specifically oxyhydrogen. In addition Wesley makes no reference to using the gases created

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to treat a waste stream, rather the hydrogen and oxygen are stored and then burned to create clean water.

Regarding Mehl (U.S. Patent 3,523,891), no mention is made oxyhydrogen gas. References are made to oxygen and hydrogen at column 4 line 71, column 5 line 66 and column 6 line 30. No mention is made of further use of these separate gases. The only gas discussed is ozone which is introduced into the system from an external source (see feature 44 of Figure 1).

Claim Rejections – 35 USC § 103

With regard to Jenks (U.S. Patent 2,822,210) this patent refers to a process for disinfecting swimming pool water through the use of adding halides to the water prior to electrolysis to create halogen gas. The present invention does not make use of any additional chemicals in the process. Further, no mention is made in Jenks of oxyhydrogen or a second use for the halogen output from electrolytic cell 35.

With regard to the examiners comments regarding Zucker (U.S. Patent 4,140,609) and Witt a.k.a. Witte (U.S. Patent 5,549,812). Zucker does not show selective degradation of contaminants. The process of Zucker involves agglomerating colloidal particles and separation by flotation. The use of electrolysis is mentioned in the abstract and at column 8 line 43, but no indication of electrolysis is provided in the Figures or the claims. Zucker describes providing a positive charge to an upstream zone and negative charges to a downstream zone. This is not the electrolysis of the present invention. Witt teaches electrolysis to form a sedimental flocculate for separation. Although the potential contaminants that can be removed include heavy metals, dyes, oils, fats and solvents, there is no indication that contaminants may be selectively degraded. As with Jenks no mention is made of oxyhydrogen or a second use for the gases produced by electrolysis.

The applicants respectfully submit that since none of the prior art cited refers to the creation of oxyhydrogen gas or a first use of the same to treat the waste stream and a second use of the same in the system, that combining the prior art cited will not yield the present invention as claimed nor is the present invention rendered obvious.

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Should the Examiner have any question or comment as to the form, content or entry of this Amendment, the Examiner is requested to contact the undersigned at the telephone number below. Similarly, if there are any further issues yet to be resolved to advance the prosecution of this application to issue, the Examiner is requested to telephone the undersigned counsel.

Respectfully submitted,

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